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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,890	09/11/2006	Fumio Hashimoto	05677/0205277-US0	7463
7278 7590 09/04/2008 DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770				
EXAMINER				
RINER, PHOEBE D				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
09/04/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/597,890

**Applicant(s)**

HASHIMOTO ET AL.

**Examiner**

PHOEBE RINER

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 01 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 10/5/06, 8/10/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Inventor's Patent Application  
6) ☐ Other: \_\_\_\_\_

**FUEL BATTERY**

Examiner: Riner      S.N.: 10/597,890      Art Unit: 1795      August 24, 2008

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. JP 2004-036083, filed on 02/13/2004.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kusunoki et al. (US 5,789,094).

As to claim 1, Kusunoki discloses stacking plural fuel cells (i.e., fuel battery) (col. 4, lines 62-67) comprising a cell reacting area of a square shape (Figure 4, cell reacting area 12, i.e. generating structures where hydrogen reacts with oxygen) wherein an

anode (Figure 6, anode 25, i.e. a gas diffusion electrode) is joined with a cathode 20 (Figure 6) and an electrolyte matrix 30 (a) (Figure 6, col. 14, lines 30-55). Kusunoki further discloses a spacer 27(a) (Figure 6, col. 14, 42-55) surrounding the edge of the generating section (Figure 6), wherein the spacer includes a center opening (Figure 6, part G is opened vertically) for containing the generating section in alignment, the center opening having a perimeter and four side edges (Figure 4, part G discloses a perimeter with four side edges); a plurality of bipolar plate substrates (Figure 6, bipolar plate substrate 1, which functions to as a separator to separate fuel gas and oxidant gas), each bipolar plate having a gas supply section (figure 5, fuel gas supplying manifold 5), wherein a soft frame for fuel gas 13 (Figure 4) is joined to the bipolar plate substrate 1 (Figure 4) with contacting surface areas, shown with hatching for clarifying, around the cell reacting area 12 (Figure 4). Kusunoki further discloses exhausting manifolds (figure 4, oxidant gas exhausting manifold 5, and a fuel gas exhausting manifold 7) on each of the four side edges of the center opening (figure 4) and sealing parts 17(a), shown (in Figure 4) with hatching for clarifying around the manifolds on the fuel gas side and a sealing part 17(b), shown (in Figure 4) with hatching for clarifying, around the manifold on the side of the entrance of oxidant gas, and wherein the bipolar plate 1 (Figure 6) (i.e., separator) is composed of metallic materials (col. 16, lines 29-36, copper, stainless steel, nickel) with four wide vent holes (Figure 4, holes 4-7) respectively conforming to the vent openings of the spacer in the direction of piling up the plurality of generating structures; and a raised portion on one side of the bipolar plate (i.e., separator) for fitting into the fit step groove is formed between each side edge of the gas supply section and

each vent hole, wherein, and in each raised portion forms a communication groove (Figure 4, item 17 (a)-(b)) communicating with the vent hole and the gas supply section along the planar direction and joins with the vent step groove of the spacer (Figure 4).

As to claim 2, Kusunoki discloses gas supply sections on both surfaces of the bipolar plate (i.e., separator) (figure 4) comprises a plurality of corrugated type spaces (Figure 6, corrugated type space 35a and 34a) projecting on both surface sides and having contact portions near the peaks (Figure 6, corrugated type space 35a and 34a) contacting the generating section, and gas flow grooves (Figure 6) among the peaks of the projections (Figure 6).

As to claim 3, Kusunoki discloses a support member (Figure 6, soft frame 14). placed in the width direction inside the mutually joined vent step groove (Figure 4, item 17 (a)-(b)) and communication groove to bring the inside end on the vent step groove side into contact with the end portion of the generating section in the thickness direction (Figure 6, soft frame 14).

#### ***Contact/Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHOEBE RINER whose telephone number is (571)270-5269. The examiner can normally be reached on M-F from 8:30 a.m. to 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan, can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phoebe Riner/

Examiner, Art Unit 1795

/Dah-Wei D. Yuan/  
Supervisory Patent Examiner, Art Unit 1795